AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 09/767,831
ATTORNEY DOCKET NO. Q62329

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A filter. ~~Filter~~ arrangement with a linear phase characteristic

comprising:

[[a.]] a first filter ~~(F1)~~ having an amplitude characteristic that meets a predefined

amplitude specification and having a phase characteristic that ~~generally~~ is a non-linear function

of frequency; and

[[b.]] a second filter ~~(F2)~~, cascade coupled to said first filter ~~(F1)~~, said second filter ~~(F2)~~

having a phase characteristic that is substantially equal to the sum of ~~that is, up to~~ a linear

function of frequency[[,]] and the ~~substantially~~ opposite ~~to said~~ phase characteristic of said first

filter ~~(F1)~~.

[01]   wherein ~~CHARACTERISED IN THAT~~ said second filter ~~(F2)~~ is an anti-causal

version of a fictive digital all-pass filter ~~(APF)~~ having a phase characteristic that is substantially

equal to the sum of ~~that is, up to~~ a linear function of frequency[[,]] and ~~substantially equal to~~ said

phase characteristic of said first filter ~~(F1)~~.

2. (*Currently Amended*) The filter ~~Filter~~ arrangement according to claim 1, wherein

~~CHARACTERISED IN THAT~~ said first filter ~~(F1)~~ is an analog ~~analogue~~ filter.

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3. (*Currently Amended*) The filter ~~Filter~~ arrangement according to claim 1, wherein

~~CHARACTERISED IN THAT~~ said first filter ~~(F1)~~ is a digital filter.

4. (*Currently Amended*) A method ~~Method~~ to develop a filter arrangement with a linear phase characteristic, wherein the method comprises ~~comprising the steps of~~:

[[a.]] designing a first filter ~~(F1)~~ so that its amplitude characteristic meets a predefined amplitude specification;

[[b.]] implementing said first filter ~~(F1)~~;

[[c.]] determining a phase characteristic of said first filter ~~(F1)~~, said phase characteristic being a non-linear function of frequency;

[[d.]] implementing a second filter ~~(F2)~~ so that its phase characteristic is[[,]] is substantially equal to the sum of ~~up to~~ a linear function of frequency[[,]] and the ~~substantially~~ opposite ~~to~~ said phase characteristic of said first filter ~~(F1)~~; and

[[e.]] cascade coupling said first filter (F1) and said second filter, wherein ~~(F2) to~~ ~~thereby constitute said filter arrangement~~;

~~CHARACTERISED IN THAT said step~~ of implementing said second filter ~~(F2)~~ comprises ~~the substeps of~~:

[[d1.]] designing a fictive digital all-pass filter ~~(APF)~~ so that its phase characteristic is[[,]] substantially equal to the sum of ~~up to~~ a linear function of frequency[[,]] and ~~substantially~~ ~~equal to~~ said phase characteristic of said first filter ~~(F1)~~; and